

**CLAIMS**

1. A remote station apparatus comprising:
  - 2 a quality measurement unit for iteratively measuring link quality of a communication link; and
  - 4 a differential analyzer for determining changes in the measured link quality.
2. The remote station of claim 1, wherein the link quality is measured as carrier to interference of a received signal.
3. The remote station of claim 2, wherein the quality measurement unit generates a quality metric, and wherein the remote station applies a sector cover to the quality metric.
4. In a wireless communication system, a method comprising:
  - 2 generating quality messages at a first frequency, the quality message providing information on the quality of a communication link; and
  - 4 generating differential indicators at a second frequency, the differential indicators indicating changes in the quality of the communication link, wherein the second frequency is greater
  - 6 than the first frequency.
  - 8
5. The method of claim 4, wherein each quality message includes carrier to interference information of a received signal at a receiver
6. The method of claim 5, wherein the received signal is a pilot signal.
7. The method of claim 4, wherein each differential indicator is at least one
- 2 bit.

8. The method of claim 4, wherein generating differential indicators further comprises:

comparing a current link quality measurement to a projected link quality measurement;

decrementing the differential indicator when the current link quality measurement is less than the projected link quality measurement;

incrementing the differential indicator when the current link quality measurement is greater than or equal to the projected link quality measurement; and

transmitting the differential indicator.

9. In a wireless communication system for processing voice communications and packet-switched communications, a base station comprising:

receive circuitry operative to receive signals on a reverse link, including a quality message and differential indicators, the quality message periodically providing a quality metric of a forward link, wherein the differential indicators track the quality metric between successive quality messages;

a memory storage unit operative to store a quality message received on the reverse link; and

a differential analyzer to update the quality message stored in the memory storage unit in response to the differential indicators.

10. The base station of claim 9, further comprising:

a scheduler unit operative to schedule packet-switched communications in the system in response to the quality message stored in the memory storage unit.

11. The base station of claim 10, wherein the quality metric is a data rate  
2 control message.

12. The base station of claim 11, wherein:  
2 each data rate control message corresponds to an entry in a data  
rate control table; and  
4 each differential indicator points to a neighboring entry in the data  
rate control table.

13. In a wireless communication system for processing voice  
2 communications and packet-switched communications, a transceiver  
comprising:

4 a data rate control table listing data rate control messages and  
associated transmission information;

6 a data rate calculation unit coupled to the data rate control table, the  
data rate calculation unit operative to select a data rate control  
8 message in response to a received signal at the transceiver;  
and

10 a differential analyzer coupled to the data rate calculation unit  
operative to generate differential indicators pointing to a next  
12 entry in the data rate control table.

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